

REMARKS

In the Office Action, the Examiner noted that Claims 1, 3 - 8, 10 - 15 and 17 - 20 were pending in the Application. The Examiner rejected all claims. Claims 1, 8 and 15 have been amended. Applicants traverse the rejections below.

I. Traversal of the Rejections over the Cited Art

The Examiner rejected Claims 1, 3 - 8, 10 - 15 and 17 - 20 under 35 U.S.C. 103(a) as being unpatentable over “applicant’s admitted prior art (AAPA) at pages 3-5, 25” in view of U.S. Patent No. 5,875,445 to Brown et al (Brown). Applicants traverse these rejections below.

A. The Present Invention

The present invention discloses a technique for displaying and editing components of data which may have complex many-to-many (i.e. non-hierarchical) relationships, using a program such as a browser. The components are presented in such a way as to make the **relationships** explicitly visible, allowing a user to navigate the **relationships** in an efficient, intuitive manner that clearly aligns with the structure of the underlying object model. In a preferred embodiment, when the user **selects** one of the explicit relationships, he is presented with a list of actions tailored to that relationship. In a further enhancement, the user may define one or more filters that will be applied to the actions list before it is presented.

Independent Claim 1 recites “a subprocess for retrieving and displaying relationship information from said model when said selected element is a component of said model”. Relative to this subject matter, the AAPA on pages 3 - 5 of the Specification was cited. However, Applicants are unable to find this subject matter on these pages. For example, on page 5, beginning on line 3, it is stated that “The elements of the list in this pane again depend on the

user's selection, and the type of elements defined as being available through the relationship(s) of the view the browser provides." This does not teach, suggest or disclose "retrieving and displaying relationship information..." No relationship information is retrieved based on selection of an element from a model; no retrieved relationship information is then displayed. On page 4, lines 11 - 13, there is a discussion that a relationship exists between elements displayed in a first pane and elements displayed in a second pane. But there is no discussion or teaching that relationship information is retrieved and displayed from the model when the selected element is a component of the model. Accordingly, Applicants submit that the AAPA does not teach, suggest or disclose this subject matter.

Amended Claim 1 also recites "a subprocess for enabling said user to select one or more relationships from said displayed relationship information". Relative to this subject matter, a passage from column 13, lines 29 - 39 was cited. This passage recites that "the relationships in identified by the user in 340 [340 is a list of relationships in a query 310] ...are used to select relationships in the relationship catalog 410 for generating the next level of hierarchy in subsequent steps." How this relates to the present invention and how this can be combined with the AAPA is unclear. There is no description or discussion of a user selecting a relationship. There is no description or discussion of a user selecting a relationship from "displayed relationship information." Nothing is based on the selection of an element from an object model, as per the present claimed invention, so how this can be combined with the AAPA is unclear. The 'relationships' of Brown are provided in a query 310, not an object model. Accordingly, Applicants submit that Brown does not teach, suggest or disclose this subject matter.

In summary, the present invention is directed to the understanding of relationships, and its claims recite the concept that relationship information is displayed and that relationships are selectable by a user. This concept is not taught, suggested or disclosed in the cited art. This is the problem with the prior art that is addressed by the present invention. The logical elements, such as the classes and methods, presented in the pane, are selectable in the prior art. However, in a complex object model, this is not enough information. Other relationships exist which cannot be

presented in the hierarchical format of the cited prior art. As discussed on page 11 of the Application, “relationships are explicitly represented as elements of the model, as are the objects (components) in that model...object models which are not strictly hierarchical in structure can be conveniently and intuitively navigated, edited, and populated using the present invention...relational databases typically have many complex relationships, which are not necessarily hierarchical in structure.” Further, “by explicitly displaying the complex relationships of the relational model, the present invention enables a user to better comprehend the underlying model...”(page 12).

Very clearly, ‘relationships’ may not be selected in the AAPA. And while it is unclear who selects the ‘relationships’ in Brown, it is quite clear that the relationships that are selected come from a query, whatever that is, and are not selected by a user from displayed relationship information which is from a model and displayed after selection of an element of the model. Further, how these teachings of the AAPA and Brown are combined is not adequately explained.

Accordingly, Applicants submit that independent Claim 1 patentably distinguishes over the cited art. Independent Claims 8 and 15 were rejected for the same reasons as Claim 1. Accordingly, it follows that these claims also patentably distinguish over the cited art. While it follows that the dependent claims also patentably distinguish over the cited art, differences between some of the dependent claims and the cited art will now be discussed.

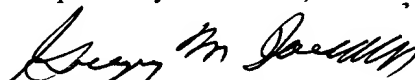
Dependent Claim 4 recites that “said action list comprises a list of actions tailored to said selected one or more relationships.” In the AAPA, relationships may not be selected. And the prior art does not teach the use of an action list relative to relationships. Each updated pane includes a list of elements that depend on what was displayed in the pane from which the user made his selection; there is no teaching that “each updated pane presents a different relationship information according to a user’s selection”, as alleged in the Office Action. There is certainly no cited teaching of an action list used in association with a selected relationship. Accordingly, Applicants submit that Claim 4, as well as dependent Claims 11 and 18, which include similar

subject matter, patentably distinguish over the cited art.

II. Summary

Applicants have presented technical explanations and arguments fully supporting their position that the pending claims contain subject matter which is not taught, suggested or disclosed by the cited art. Accordingly, Applicants submit that the present Application is in a condition for Allowance. Reconsideration of the claims and a Notice of Allowance are earnestly solicited.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1 1. (Twice Amended) In a computing environment, computer readable code for implementing a
2 convenient and intuitive visually-oriented technique for navigating an object model, said
3 computer readable code comprising:
4 a subprocess for displaying a browser;
5 a subprocess for retrieving and displaying a set of elements in said browser, said elements
6 representing said object model;
7 a subprocess for enabling a user of said code to select one of said elements; [and]
8 a subprocess for retrieving and displaying relationship information from said model when
9 said selected element is a component of said model; and
10 a subprocess for enabling said user to select one or more relationships from said
11 displayed relationship information.

1 8. (Twice Amended) A system for implementing a convenient and intuitive visually-oriented
2 technique for navigating an object model in a computing environment, comprising:
3 means for displaying a browser;
4 means for retrieving and displaying a set of elements in said browser, said elements
5 representing said object model;
6 means for enabling a user of said code to select one of said elements; [and]
7 means for retrieving and displaying relationship information from said model when said
8 selected element is a component of said model; and
9 means for enabling said user to select one or more relationships from said displayed
10 relationship information.

1 15. (Twice Amended) A method for implementing a convenient and intuitive visually-oriented
2 technique for navigating an object model in a computing environment, comprising the steps of:
3 displaying a browser;
4 retrieving and displaying a set of elements in said browser, said elements representing
5 said object model;
6 enabling a user of said code to select one of said elements; and
7 retrieving and displaying relationship information from said model when said selected
8 element is a component of said model; and
9 enabling said user to select one or more relationships from said displayed relationship
10 information.